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EXAMINER
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ZHU, RICHARD Z

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RAMON VEGA, GONZALO GASTON, and JOSE LUIS  
VALERO

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Appeal 2010-000161  
Application 10/697,010  
Technology Center 2600

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Before HOWARD B. BLANKENSHIP, JEAN R. HOMERE, and THU A.  
DANG, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1, 2, 6-12, and 16-20. Claims 3-5 and 13-15 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse, *pro forma*, and enter a new ground of rejection.

### A. INVENTION

According to Appellants, the invention relates to operating a printer of the kind comprising an array of dot printing elements extending in a first direction relative to a page to be printed and which prints at least a part of the page during relative movement between the printhead and page in a second direction substantially normal to the first direction (Spec. 1, ll. 5-14).

### B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary:

1. A method of operating a printer of the kind comprising an array of dot printing elements extending in a first direction relative to a page to be printed and which prints at least a part of the page during relative movement between the array and the page in a second direction at an angle to the first direction, the array comprising a plurality of groups of elements with redundancy among the elements of the group, the method comprising, in respect of at least one of said groups, initially commencing printing using a subset of the elements in the group and, during the course of printing, increasing the number of elements available to print in the group;

wherein each element newly made available to the group is initially made available for use less frequently than the existing element(s) in a subsequent pass of printing; and

wherein the number of elements in the group available to print is increased as a function of the number of firing pulses sent to the elements of the group.

### C. REJECTION

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Fuse	US 5,673,071	Sep. 30, 1997
Girones	US 6,238,112 B1	May 29, 2001
Audi	US 6,705,697 B2	Mar. 16, 2004 (filed Mar. 6, 2002)
Masuyama	US 6,871,934 B2	Mar. 29, 2005 (filed Mar. 25, 2003)

Claims 1, 2, 6, 7, 10-12, 16, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masuyama and Fuse.

Claims 9 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masuyama, Girones and Audi.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Masuyama, Fuse and Girones.

## II. ISSUE

The dispositive issue before us is whether claim 1 and claim 11, which similarly recite “each element newly made available to the group is initially made available for use less frequently than the existing element(s) in a subsequent pass of printing” (emphasis added) particularly point out and distinctly claim the subject matter which Appellants regard as the invention.

## III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

### *Appellants’ Specification*

1. Appellants disclose that inkjet printers are known in which a printbar extends the full height (or width) of a page to be printed and has an array of ink ejecting nozzles along substantially its full length, so that an

entire page is printed during a single pass of the printbar relative to the page, wherein a print controller determines which nozzles fire and when as the printbar passes over the page (Spec. 2, ll. 5-13).

2. In accordance to Appellants' invention, at least one element in the group is serviced prior to printing so that it is at least partially operational at the commencement of the print job, printing being commenced using the said at least one service element and one non-serviced element, the non-serviced element initially being made available for use less frequently than the said at least one serviced element (Spec. 5, ll. 6-13).

3. At the start of print job initially, only the first nozzle 1 is used for a period of time T1 such that nozzle 1 will be fully operational at the end of the period T1, wherein during the period T2, the nozzle 2 is made available for use in the group but only at a frequency less than that of the nozzle 1 but nozzle 2 will be fully operational at the end of the period T2 and used with equal frequency as that of nozzle 1 for a period T3 (Spec. 6, ll. 17-29; Fig. 3).

4. The periods T1 to T6 are not absolute time periods but correspond each to a respective predetermined number of dot locations traversed by the group of nozzles (Spec. 7, ll. 10-13).

#### IV. ANALYSIS

##### *35 U.S.C. § 103(a)*

Appellants contend that “the present application enables nozzles to become fully operational during printing operations” and that “Masuyama and Fuse fail to teach this concept” (App. Br. 11). However, such argument is not commensurate in scope with the language of the claims since the

claims do not recite any such “fully operational during printing operations” feature.

Nevertheless, we reverse the outstanding rejection of claims 1, 2, 6-12, and 16-20 under 35 U.S.C. § 103(a), *pro forma*, because we conclude that at least independent claims 1 and 11 are indefinite under 35 U.S.C. § 112, second paragraph, as detailed under new grounds of rejection, *infra*. That is, claims 1, 2, 6-12, and 16-20 on appeal must be reasonably understood without resorting to speculation to thereby prevent the rejections of the claims over prior art from being based on speculation and assumptions as to the scope of the claims. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962). Presently, the claims on appeal do not adequately reflect what the disclosed invention is. We are therefore declining from utilizing speculation and conjecture in an attempt to ascertain the scope of the claims.

*35 U.S.C. §112, Second Paragraph*

*New Ground of Rejection*

We find that independent claims 1 and 11 on appeal are so abstract in recitation that the claims are deemed indefinite. That is, we cannot determine the metes and bounds of the claims as required to ascertain the scope of the respective claim. In particular, we are unclear as to what the phrase “made available for use less frequently than the existing element(s) in a subsequent pass” as recited in claim 1 (emphasis added) and similarly recited in claim 11 is to include, mean or represent. That is, we are unsure how an element can be made available for use “less frequently”, i.e. less amount of time, in “a”, i.e. one single, subsequent pass. In fact, we are unsure as to whether “less frequently” as used in the claims has the ordinary meaning of “less amount of time.”

Though a claim is read in view of the specification, Appellants' Specification does not shed any light as to the meaning of the phrase. The Specification does not even define as to what is a "pass", and we are unclear as to what a "subsequent pass" is. That is, Appellants' Specification merely discusses that a printbar extends the full height (or width) of a page to be printed so that an entire page is printed during a single pass of the printbar relative to the page (FF 1). The Specification is silent as to how each "pass" or "subsequent pass" relates to the availability for use of the printing elements as required by the claims.

Similarly, the Specification is silent as to what "less frequently" means. Instead, the Specification only states that the non-serviced elements are initially being made available for use less frequently than the serviced elements (FF 2), without discussing any subsequent "pass" or what "less frequently" means. Though the Specification discloses an exemplary embodiment in which nozzle 2 is made available for use at a frequency less than that of the nozzle 1 during a time period T2 (FF 3), the Specification is silent as to how this time period is related to "a" subsequent "pass" as recited in the claims or how is it available for use "less frequently" in a "pass." In fact, instead of defining what "less frequently" means, the Specification states that the "time periods" are not absolute time periods but correspond each to a respective predetermined number of dot locations traversed by the group of nozzles (FF 4).

Therefore, we find it unclear as to what the language of claims 1 and 11 is directed. When the claims become so ambiguous that one of ordinary skill in the art cannot determine their scope absent speculation, such claims are invalid for indefiniteness. *In re Steele*, 305 F.2d at 862-63.

Here, we conclude that each of claims 1 and 11 do not reasonably apprise those skilled in the art of its scope. Because we conclude that there are significant ambiguities with respect to the independent claims and thus to each of the claims depending therefrom, we enter a new ground of rejection under 35 U.S.C. § 112, second paragraph, against claims 1, 2, 6-12, and 16-20 on appeal, pursuant to our authority under 37 C.F.R. § 41.50(b).

## V. CONCLUSION

We conclude that claims 1, 2, 6-12, and 16-20 are indefinite under 35 U.S.C. § 112, second paragraph, and therefore reverse, *pro forma*, the § 103(a) rejection of those claims

## VI. DECISION

We reverse, *pro forma*, the Examiner's rejection of claims 1, 2, 6-12, and 16-20 under 35 U.S.C. § 103(a).

In a new ground of rejection, we reject claims 1, 2, 6-12, and 16-20 under 35 U.S.C. § 112, second paragraph, as being indefinite.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (2009). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:



(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REVERSED – 37 C.F.R. § 41.50(b)